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# HEALTH STATISTICS

*FROM THE U. S. NATIONAL HEALTH SURVEY*

distribution and use of

Hearing Aids, Wheel Chairs,  
Braces, and Artificial Limbs

United States

July 1958-June 1959

*Statistics relating to the distribution and use of hearing aids, wheel chairs, braces, and artificial limbs. Based on data collected in household interviews during the period July 1958-June 1959.*

U. S. DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE  
Abraham A. Ribicoff, Secretary  
Public Health Service  
Luther L. Terry, Surgeon General

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Washington, D. C.

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The U. S. National Health Survey is a continuing program under which the Public Health Service makes studies to determine the extent of illness and disability in the population of the United States and to gather related information. It is authorized by Public Law 652, 84th Congress.

### CO-OPERATION OF THE BUREAU OF THE CENSUS

Under the legislation establishing the National Health Survey, the Public Health Service is authorized to use, insofar as possible, the services or facilities of other Federal, State, or private agencies. For the Health Interview Survey the Bureau of the Census designed and selected the sample, conducted the household interviews, and processed the data in accordance with specifications established by the Public Health Service.

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# SYMBOLS AND NOTES

Data not available (three dashes)-----	---
Category not applicable (three dots)-----	...
Quantity is zero (1 dash)-----	-
Magnitude greater than zero but less than one-half of the unit used-----	0 or 0.0
Magnitude of the sampling error precludes showing separate estimates-----	(*)

NOTE: Due to rounding detailed figures within  
tables may not add to totals

# HEARING AIDS, WHEEL CHAIRS, BRACES, AND ARTIFICIAL LIMBS

## SUMMARY

From data collected in the National Health Survey during the period July 1958-June 1959 on the civilian, noninstitutionalized population of the United States, it was estimated that 1,161,000 persons had hearing aids. When related to the persons reporting impairment of hearing during the same period of time, this estimate indicates that 1 person out of 5 with hearing impairment had a hearing aid.

Based on persons with hearing impairment, more females than males had hearing aids, and the rate of hearing aids was consistently higher in urban than in rural areas with the magnitude of the differential by residence increasing with age.

Approximately 253,000 persons possessed wheel chairs during the data-collection period. About 54 percent of these persons were confined to the house except in emergencies.

Estimates of 201,000 persons with leg or foot braces and 494,000 with other types of braces were obtained from the survey. About 82,000, or 41 percent of the leg or foot braces, were reported for children under 15 years of age, and about three fourths of the 82,000 reported were worn because of conditions due to poliomyelitis or of congenital origin.

Of the estimated 139,000 persons with artificial limbs, 132,000, or 94 percent, were reported for males. About 106,000, 76 percent of the total number, were persons with an artificial leg or foot. Based on the 274,000 persons who reported absence of major extremities during the survey period, July 1958-June 1959, it is estimated that approximately one half of such persons had an artificial limb.

## SOURCE OF DATA

The information contained in this report was obtained from a continuous probability sample of the civilian, noninstitutional population

residing in the United States. The report is based on interview data collected during the period July 1958-June 1959, during which time interviews were conducted in approximately 37,000 households throughout the United States and included about 120,000 persons.

In addition to the basic questions on the questionnaire, supplementary questions to collect information on special aids were included during the period July 1958-June 1959. These questions were designed to determine the number of persons who had aids (hearing aid, wheel chair, brace, or artificial limb), conditions for which the aids were used, the frequency with which the aids were used, and the reasons for their occasional use or complete disuse.

A description of the survey design, methods used in estimation, and the general qualifications of the data is presented in Appendix I. Particular attention is called to information contained in the section Reliability of Estimates. The data in all of the cells in the tables in the report are subject to errors of sampling, i.e., errors resulting from the use of a sample of households instead of all the households in the United States. The sampling errors for most of the estimates presented are of relatively low magnitude. However, for estimates of items of very low frequency in the population, such as the rate of hearing aids among persons under 45 years of age, the relative sampling error may become quite large. While such an estimate represents the general order of the frequency of occurrence of the item, it should be interpreted with caution.

Definitions of certain terms used in this report with particular emphasis on the kinds of appliances considered as special aids are presented in Appendix II. Many of the terms have specialized technical meanings for the purposes of this survey, and familiarity with these definitions is necessary for the interpretation of the findings presented.

The data presented in this report are based on responses to a supplementary question on the questionnaire used by the National Health Survey during the period July 1958-June 1959.

This report was prepared by Geraldine A. Glesmon of the National Health Survey staff and Nelsa Craig as a participant in a Summer Internship Program.

A facsimile of the questionnaire used in the survey is presented as Appendix III.

## DISTRIBUTION OF SPECIAL AIDS

The number of special aids reported in the household interview produced nationwide estimates of relatively small magnitude. Because of the sampling error associated with such estimates it is not possible to present detailed information on all types of aids by age, residence, family income, and some of the other factors which may have some effect on the distribution of special aids. For this reason the greater part of this report deals with hearing aids, the

only type of aid reported in sufficient number to permit cross-classification of the data by the aforementioned factors.

The comparative distribution of the various types of aids in the noninstitutionalized population is shown in table A, and, because of the low frequencies, has been limited to a series of dichotomous classifications.

With the exception of wheel chairs, special aids were reported more frequently for males than for females. While some of the differentials by sex shown in table A are not statistically significant, a pattern of higher rates among males is fairly well established.

As would be expected, the number of hearing aids and of wheel chairs per 1,000 population

Table A. Number of special aids and rate per 1,000 population by type of aid according to sex, age, and residence: United States, July 1958-June 1959

Characteristic	Type of special aid					
	Hearing aid	Wheel chair	Brace			Artificial limb
			All types	Leg or foot	Other	
Number of aids in thousands						
All persons-----	1,161	253	695	201	494	139
<u>Sex</u>						
Male-----	589	93	454	127	327	132
Female-----	572	161	240	74	167	(*)
<u>Age</u>						
Under 65 years-----	514	99	633	189	444	115
65+ years-----	648	154	62	(*)	50	25
<u>Residence</u>						
Urban-----	750	160	403	122	281	97
Rural-----	411	93	292	79	213	42
Rate per 1,000 population						
All persons-----	6.8	1.5	4.1	1.2	2.9	0.8
<u>Sex</u>						
Male-----	7.1	1.1	3.4	1.5	3.9	1.6
Female-----	6.5	1.8	2.7	0.8	1.9	(*)
<u>Age</u>						
Under 65 years-----	3.3	0.6	4.0	1.2	2.8	0.7
65+ years-----	43.7	10.4	4.2	(*)	3.4	1.7
<u>Residence</u>						
Urban-----	7.3	1.6	3.9	1.2	2.7	0.9
Rural-----	6.0	1.4	4.3	1.2	3.1	0.6



was very much higher among persons 65 years of age and older than among younger persons. Braces were reported at about the same rate for the two age groups. The higher rate of leg and foot braces among persons under 65 years was largely attributable to the number reported for children. In the age group 0-14 years, poliomyelitis and conditions of congenital origin were most frequently reported as conditions for which the leg or foot brace was needed.

## HEARING AIDS

During the year July 1958-June 1959 approximately 1,161,000 persons in the civilian, noninstitutional population of the United States possessed hearing aids. This represents a rate of 6.8 persons per 1,000 population with almost equal distribution among males and females in each of the age groups shown in table 1. Among persons under 45 years of age, 1.3 persons per 1,000 population had a hearing aid, with the rate steadily increasing with age to 72.6 persons per 1,000 population among those 75 years of age and older (table 1).

For certain purposes, such as the comparison of the distribution of hearing aids with that of other special aids, the entire population is appropriate to use as a base for the computation of rates. However, a more suitable base to use in the evaluation of differences in the distribution of hearing aids by demographic factors is the number of persons with hearing impairment. Not only do persons in this category constitute a more specific base for the use of hearing aids, but their distribution by age group is quite similar to that for persons with hearing aids. Because users of the data employ rates for various purposes, both types of rates are presented in the detailed tables on hearing aids.

Another factor which must be taken into account in the interpretation of rates, particularly in the consideration of differences in crude rates by demographic characteristics, is the age distribution of the populations on which the rates are based. For example, in table 2 the rate of hearing aids is higher among persons with family income \$4,000 and over in four of the five age groups shown. Yet a rate computed for all ages in the lower income bracket, after summing the number of hearing aids in the individual age groups and dividing by either the total population or the number of persons with hearing impairment, is higher than a comparable rate among all persons with family income \$4,000 and over. This apparent discrepancy is due to the disproportionate number of older persons in the income group under \$4,000. About 15 percent of the total population and approxi-

mately 60 percent of persons with hearing impairment in the lower income bracket were 65 years or older, as compared with 4 percent of the total population and 26 percent of the persons with hearing impairment in the group with family income \$4,000 and over. This results in the rate for all ages in the lower income group being heavily weighted by the high rate of hearing aids among persons 65 years and over.

Because of the danger of misinterpretation of crude rates which are subject to distortion caused by the concentration of the measurement item (hearing aids, in this instance) in a particular segment of the population or by the abnormal age distribution of the base population, only age-specific rates have been shown in the detailed tables. For users of the data who wish to compute age-adjusted rates, suitable population data are presented in tables 5 and 6.

The number of persons with hearing impairment was obtained from replies to the "Illnesses recall" questions and the check list of selected impairments on the questionnaire (see Appendix III). Estimates are based on all hearing impairments reported, with no attempt to determine the proportion which could be corrected by the use of a hearing aid.

Roughly 200 persons per 1,000 persons with hearing impairment, or 1 person out of 5, had a hearing aid. Since the rate of hearing impairment was higher among males than among females, this method of computation shows that more females than males with hearing impairment possess hearing aids (table B). The number of hearing aids per 1,000 persons with hearing impairment increases with age for both of the sexes, but, unlike the rates based on the total population of the United States, the sex differential was greatest in the 55-64 and 65-74 age groups (table 1 and fig. 1).

The rates shown in columns 2 and 3 of table 2 for hearing aids by amount of family income are somewhat inflated because of the exclusion of persons with "unknown" income in the population base. Income data were not available for an estimated 12 million persons in the population, and with no information by which to prorate these persons by income status in the various age groups, they were of necessity excluded from the population figures. In some instances rates shown in column 1 for "all incomes" are lower than the rates by income status because persons of unknown income are included in the total column. These rates represent the true average level of the rates shown by the amount of family income.

The estimate of the number of hearing aids per 1,000 population increased with age

Table B. Number and rate per 1,000 population of persons with hearing aids and with hearing impairment, and the rate of persons with hearing aids per 1,000 persons with hearing impairment: United States, July 1958-June 1959

Persons with hearing aids and hearing impairment	Male	Female
Persons with hearing aids		
Number (in thousands)-----	589	572
Rate per 1,000 population-----	7.1	6.5
Persons with hearing impairment		
Number (in thousands)-----	3,279	2,495
Rate per 1,000 population-----	39.3	28.4
Rate of hearing aids per 1,000 persons with hearing impairment-----	179.6	229.3

in both urban and rural areas of residence, but no appreciable difference by area of residence was present in any of the age groups. However, rates based on persons with hearing impairment were consistently higher in urban areas for all of the age groups, with the magnitude of the differential by residence increasing with age (table 3).

Similar to the distribution of hearing aids by other demographic characteristics, the number of hearing aids per 1,000 population increased with age in all of the activity status groups. The distribution of hearing aids by age was quite similar among those working or going to school and those keeping house, with the exception of the age group 65-74 where the rate for those working was 17.5 per 1,000 population compared with 28.1 for those keeping house. This difference may be partially explained by the number of working persons who retire at 65 years of age, while those keeping house continue to report keeping house as their major activity even after 65. Rates based on the number of persons with hearing impairment display a similar pattern with the same significant differential for those working and those keeping house in the age group 65-74 (table 4).

About 12 percent of the hearing impairments which had caused persons to obtain hearing aids were due to an accident or an injury (excluding birth injury). Approximately 20 percent were due to infections and inflammations, and about 2 percent were of congenital origin or due to a birth injury. The remainder of the hearing impairments responsible for the use of a hearing aid, representing about two thirds of the hearing aids reported, were due to other causes or conditions. This category includes ill-defined causes, such as old age, "wear and tear," gradual loss

of hearing, and continued exposure to noise.

Of the estimated 1,161,000 persons with hearing aids, 432,000 persons, or 37.2 percent, used the aid all of the time, and 208,000 persons, or 17.9 percent, used it most of the time. About 340,000 persons, or 29.3 percent of those with hearing aids, used the aid occasionally, while 172,000, or 14.8 percent, no longer used the device. For approximately 10,000 persons,

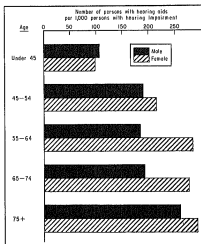


Figure 1. Number of hearing aids per 1,000 persons with hearing impairment by age and sex.

Table C. Distribution of persons with hearing aids according to amount of time used and reason for occasional or discontinued use of hearing aid: United States, July 1958-June 1959

Amount of time used and reason for occasional or discontinued use of hearing aid	Number (in thousands)	Percent
Total persons with hearing aids-----	1,161	100.0
Persons using hearing aid all or most of the time-----	640	55.1
Persons using hearing aid occasionally:		
Aid not needed all the time-----	195	16.8
Aid caused discomfort-----	114	9.8
Other reason-----	30	2.6
Persons no longer using hearing aid:		
Aid not needed all the time-----	32	2.8
Aid caused discomfort-----	100	8.6
Other reason-----	40	3.4
No information on use of hearing aid-----	10	0.9

about 0.9 percent of the total with aids, no information was available on the frequency of use.

While various reasons were given for the occasional or discontinued use of hearing aids, in general they can be classified as (1) aid not needed all the time, (2) aid caused discomfort, and (3) other reasons. The distribution of persons with hearing aids according to the amount of time the aid was used and the reason for the occasional or discontinued use of the aid is shown in table C. It is of particular interest that the reason reported most frequently for the occasional use of a hearing aid was "the aid was not needed all the time," while discomfort caused by the hearing aid was most frequently reported as a reason by those persons no longer using a hearing aid.

## OTHER SPECIAL AIDS

### Wheel Chairs

Approximately 253,000 persons in the non-institutional population were estimated to have wheel chairs during the data-collection period July 1958-June 1959. Of this number 99,000, or 39.1 percent, were reported by persons under 65 years of age, 46,000, or 18.2 percent, by persons 65-74 years of age, and 109,000, or 43.1 percent, by persons 75 years and over. The distribution by sex and age is shown graphically in figure 2.

About 70,000 (27.7 percent) of the persons with wheel chairs reported their usual activity as working or going to school or keeping house. Of the remaining 183,000, about 98,000 were retired and 85,000 were classified as other or unknown activity status, a category which would include those who had never been able to work, go to school, or keep house, and would therefore not be classified in any of the major activity groups provided on the questionnaire.

Approximately 54 percent of the persons with wheel chairs were confined to the house, except in emergencies. The percentage disabled to this degree among those 65 years and over was almost twice as high as the comparable percentage for those under 65 years (table D). This reflects to some extent the higher percentage of impairments reported as conditions

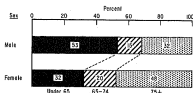


Figure 2. Percent distribution of persons with wheel chairs according to age by sex.

Table D. Number and percent of persons with wheel chairs who were confined to the house according to age: United States, July 1958-June 1959

Age	Number of persons with wheel chairs (in thousands)	Persons confined to the house	
		Number (in thousands)	Percent
All ages-----	253	137	54.2
Under 65 years-----	99	35	35.4
65-74 years-----	46	31	67.4
75+ years-----	109	71	65.1

for which wheel chairs were needed in the older age group. Since data on all wheel chairs were collected, whether the person was permanently confined or only temporarily so due to injury or other acute condition, data for persons under 65 would be more heavily weighted by persons with temporary disability.

Of the 253,000 persons with wheel chairs, 134,000, or 53.0 percent, used a wheel chair all of the time, 39,000, or 15.4 percent, most of the time, 66,000, or 26.1 percent, occasionally, and the remainder, about 5 percent of the total had discontinued the use of a wheel chair.

#### Braces

The distribution of leg and foot braces is quite different from that of other braces, particularly when considered by age, amount of time used, and the type of conditions necessitating the use of a brace. For this reason data for leg and foot braces have been tabulated as a separate category (table E).

Approximately 41 percent of all leg and foot braces were reported for children under 15 years of age as compared with 6 percent of the braces of other types. Of the 82,000 leg or foot braces reported for children, 61,000, or 74 percent, were worn because of conditions due to poliomyelitis or of congenital origin. The proportion of persons 45 years and over among those with other kinds of braces, such as back or neck braces, was twice the proportion in this age group among persons with leg and foot braces.

Of the persons with leg or foot braces, about 70 percent used the brace all or most of the time; a comparable percentage among those with other types of braces was 50 percent. The appreciably higher percentage who reported occasional use of the brace among those with other types of braces was probably due to the

type of condition for which the brace was used. About one half of the other types of braces were used for conditions classified as nonimpairments; many of these were conditions causing temporary or recurrent disability, such as displacement of intervertebral disc, arthritis, ill-defined back conditions, and current injuries. The high percentage of impairments among the conditions for which a leg or foot brace was needed accounted for the higher percentage reporting constant use of the appliance.

About 113,000, 56 percent of the 201,000 persons with leg or foot braces, reported working or going to school as their usual activity. About 16,000 were keeping house or retired. Of the remaining 72,000 whose usual activity was classified as other, 49,000 were children under 15 years of age. Even though the small numbers involved precluded a more detailed age grouping, there is little doubt that the group included many children under 6 who had not yet started to school.

In the group reporting other types of braces, 312,000, 63 percent of the total group, reported working or going to school as their usual activity; 80,000 were keeping house, 26,000 were retired, and 75,000 were classified in the other or unknown group.

The percentage of persons who were unable to carry on their major activity was higher among persons with other types of braces than among those with leg or foot braces, but, conversely, a higher proportion of those with leg or foot braces had limitation of mobility (table F). It should be pointed out that limitation of activity and mobility is considered on a person basis, and no attempt has been made to determine if the limitation is due to the condition causing the use of the brace. In addition, there is a possibility that an individual may have leg or foot braces as well as other types of braces, and thus would be included in both groups.

Table E. Percent distribution of persons with leg or foot braces and other braces by age, amount of time aid used, and type of condition: United States, July 1958-June 1959

Characteristic	Leg or foot braces		Other braces	
	Number (in thousands)	Percent	Number (in thousands)	Percent
<u>Age</u>				
All ages-----	201	100.0	494	100.0
Under 15 years-----	82	40.8	29	5.9
15-44 years-----	71	35.3	238	48.2
45+ years-----	48	23.9	226	45.7
<u>Amount of time used</u>				
Total-----	201	100.0	494	100.0
All of the time-----	116	57.7	178	36.0
Most of the time-----	28	13.9	78	15.8
Occasionally-----	37	18.4	168	34.0
Never used now-----	21	10.4	70	14.2
<u>Type of condition</u>				
All conditions-----	201	100.0	494	100.0
Impairment-----	188	93.5	228	46.2
Nonimpairment-----	13	6.5	266	53.8

Table F. Percent distribution of persons with leg or foot braces and other braces by chronic limitation of activity or mobility: United States, July 1958-June 1959

Chronic limitation	Persons with leg or foot braces		Persons with other braces	
	Number (in thousands)	Percent of total	Number (in thousands)	Percent of total
Total-----	201	100.0	494	100.0
Unable to carry on major activity-----	15	7.5	63	12.8
Limited in amount or kind of usual or outside activity-----	93	46.3	227	46.0
No limitation of activity-----	93	46.3	204	41.3
Total-----	201	100.0	494	100.0
Limited in mobility-----	60	29.9	92	18.6
No limitation of mobility-----	141	70.1	402	81.4

#### Artificial Limbs

About 132,000 representing 94 percent of the 139,000 artificial limbs reported in the survey were reported for males, and about 106,000, or 76 percent of the total, were classified as artificial leg or foot.

About 57,000, 41 percent of the total number, were reported for persons under 45 years of age. Approximately 90 percent of the artificial

limbs were used all or most of the time. All of the conditions causing the use of artificial limbs were classified as impairments since the use of an artificial limb implies the absence of a major extremity.

Based on the 274,000 persons who reported conditions classified as absence of major extremity, it is estimated that approximately one half of such persons had an artificial limb.

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Table 1. Number of persons with hearing aids and number per 1,000 population and per 1,000 persons with hearing impairment by sex and age: United States, July 1958-June 1959

[Data are based on household interviews of the civilian, noninstitutional population. The survey design, general qualifications, and information on the reliability of the estimates are given in Appendix I. Definitions of terms are given in Appendix II]

Age	Both sexes	Male	Female
Number of persons in thousands			
Under 45-----	156	94	62
45-54-----	146	81	65
55-64-----	212	116	96
65-74-----	281	131	149
75+-----	367	167	199
Rate per 1,000 population			
Under 45-----	1.3	1.6	1.0
45-54-----	7.3	8.3	6.3
55-64-----	14.1	16.1	12.3
65-74-----	28.8	28.8	28.5
75+-----	72.6	76.5	69.4
Rate per 1,000 persons with hearing impairment			
Under 45-----	101.9	104.9	97.5
45-54-----	200.3	189.3	215.9
55-64-----	218.6	183.8	283.2
65-74-----	230.7	192.9	276.4
75+-----	276.8	258.9	292.2

Table 2. Number of persons with hearing aids and number per 1,000 population and per 1,000 persons with hearing impairment by family income and age: United States, July 1958-June 1959

(See footnote on table 1)

Age	Family income		
	All incomes <sup>1</sup>	Under \$4,000	\$4,000+
Number of persons in thousands			
Under 45-----	156	40	116
45-54-----	146	69	77
55-64-----	212	99	112
65-74-----	281	192	89
75+-----	367	249	116
Rate per 1,000 population			
Under 45-----	1.3	1.0	1.6
45-54-----	7.3	11.0	6.3
55-64-----	14.1	15.5	15.9
65-74-----	28.8	31.3	32.9
75+-----	72.6	78.7	88.2
Rate per 1,000 persons with hearing impairment			
Under 45-----	101.9	85.5	121.3
45-54-----	200.3	293.6	177.8
55-64-----	218.6	219.0	249.4
65-74-----	230.7	237.0	290.8
75+-----	276.8	288.2	347.3

<sup>1</sup> Includes persons with "unknown" family income.



Table 3. Number of persons with hearing aids and number per 1,000 population and per 1,000 persons with hearing impairment by residence and age: United States, July 1958-June 1959

[Data are based on household interviews of the civilian, noninstitutional population. The survey design, general qualifications, and information on the reliability of the estimates are given in Appendix I. Definitions of terms are given in Appendix II.]

Age	Residence		
	All areas	Urban	Rural
Number of persons in thousands			
Under 45-----	156	97	59
45-54-----	146	95	51
55-64-----	212	139	73
65-74-----	281	175	106
75+-----	367	244	123
Rate per 1,000 population			
Under 45-----	1.3	1.4	1.2
45-54-----	7.3	7.3	7.2
55-64-----	14.1	13.8	14.6
65-74-----	28.8	27.5	31.2
75+-----	72.6	75.4	67.8
Rate per 1,000 persons with hearing impairment			
Under 45-----	101.9	111.1	89.7
45-54-----	200.3	209.7	184.8
55-64-----	218.6	227.9	202.8
65-74-----	230.7	248.6	206.2
75+-----	276.8	297.6	243.6

Table 4. Number of persons with hearing aids and number per 1,000 population and per 1,000 persons with hearing impairment by major activity and age: United States, July 1958-June 1959

(See footnote on table 3)

Age	Major activity			
	All activities <sup>1</sup>	Working or going to school	Keeping house	Retired
Number of persons in thousands				
Under 45-----	156	112	33	...
45-54-----	146	107	31	-
55-64-----	212	121	59	21
65-74-----	281	41	113	110
75+-----	367	28	126	195
Rate per 1,000 population				
Under 45-----	1.3	1.5	1.7	...
45-54-----	7.3	8.1	5.2	-
55-64-----	14.1	14.3	11.6	31.5
65-74-----	28.8	17.5	28.1	36.8
75+-----	72.6	72.5	67.2	81.4
Rate per 1,000 persons with hearing impairment				
Under 45-----	101.9	100.0	114.6	...
45-54-----	200.3	217.5	169.4	-
55-64-----	218.6	203.7	235.4	259.3
65-74-----	230.7	173.0	272.9	222.2
75+-----	276.8	337.3	286.4	272.3

<sup>1</sup> Includes persons whose major activity was classified as other (as defined in Appendix II).

Table 5. Number and rate per 1,000 population of persons with hearing impairment according to age by sex, family income, residence, and major activity: United States, July 1958-June 1959

[Data are based on household interviews of the civilian, noninstitutional population. The survey design, general qualifications, and information on the reliability of the estimates are given in Appendix 1. Definitions of terms are given in Appendix 2.]

Characteristic	Age					
	All ages	Under 45	45-54	55-64	65-74	75+
Number of persons in thousands						
All persons with hearing impairment--	5,774	1,531	729	970	1,218	1,326
<u>Sex</u>						
Male-----	3,279	896	428	631	679	645
Female-----	2,495	636	301	339	539	681
<u>Family income</u>						
Under \$4,000-----	2,829	468	235	452	810	864
\$4,000+-----	2,478	956	433	449	306	334
<u>Residence</u>						
Urban-----	3,459	873	453	610	704	820
Rural-----	2,315	658	276	360	514	505
<u>Major activity</u>						
Working or going to school-----	2,509	1,120	492	577	237	83
Keeping house-----	1,556	288	183	231	414	440
Retired-----	1,299	...	8	81	495	716
Rate per 1,000 population						
All persons with hearing impairment--	33.7	12.6	36.4	64.5	124.7	262.5
<u>Sex</u>						
Male-----	39.3	15.0	43.9	87.6	149.2	295.5
Female-----	28.4	10.3	29.3	43.4	103.3	237.4
<u>Family income</u>						
Under \$4,000-----	45.8	11.7	37.5	70.9	132.2	273.2
\$4,000+-----	25.3	12.8	35.7	63.6	113.1	254.0
<u>Residence</u>						
Urban-----	33.6	12.4	35.0	60.8	110.5	253.3
Rural-----	33.8	12.9	39.0	72.1	151.4	278.2
<u>Major activity</u>						
Working or going to school-----	25.4	15.0	37.3	68.3	101.0	215.0
Keeping house-----	43.0	14.9	31.0	45.3	103.1	234.8
Retired-----	211.6	...	88.9	121.4	165.8	298.7

Table 6. Population used in obtaining rates shown in this publication by sex, family income, residence, and major activity: United States, July 1958-June 1959

[Data are based on household interviews of the civilian noninstitutional population. The survey design, general qualifications, and information on the reliability of the estimates are given in Appendix I. Definitions of terms are given in Appendix II.]

Characteristic	Age					
	All ages	Under 45	45-54	55-64	65-74	75+
Number of persons in thousands						
Total population-----	171,300	121,424	20,026	15,029	9,769	5,052
<u>Sex</u>						
Male-----	83,360	59,649	9,759	7,219	4,550	2,183
Female-----	87,941	61,775	10,267	7,810	5,219	2,869
<u>Family income</u>						
Under \$4,000-----	61,827	39,888	4,271	6,376	6,128	3,163
\$4,000+-----	97,774	74,567	12,127	7,059	2,706	1,315
<u>Residence</u>						
Urban-----	102,813	70,225	12,941	10,038	6,373	3,237
Rural-----	68,486	51,200	7,085	4,991	3,395	1,815
<u>Major activity</u>						
Working or going to school-----	98,848	74,463	13,204	8,449	2,346	386
Keeping house-----	36,189	19,288	5,909	5,100	4,017	1,874
Retired-----	6,139		90	667	2,986	2,397

NOTE: For official population estimates for more general use, see Bureau of the Census reports on the civilian population of the United States, in Current Population Reports: Series P-20, P-85, P-90, P-97, and P-60.



## APPENDIX I

### TECHNICAL NOTES ON METHODS

#### Background of This Report

This report, Hearing Aids, Wheel Chairs, Braces, and Artificial Limbs, is one of a series of statistical reports prepared by the U. S. National Health Survey which cover separate health-related topics. It is based on information collected in a continuing nationwide sample of households in the Health Interview Survey, which is one of the major projects of the U. S. National Health Survey.

The Health Interview Survey utilizes a questionnaire which elicits information on illnesses, injuries, chronic conditions, disability, medical care, and other health topics in addition to personal and demographic characteristics. As data relating to each of these various broad topics are tabulated and analyzed, separate reports are issued which cover one or more of the specific topics.

The population covered by the sample for the Health Interview Survey is the civilian noninstitutional population of the United States living at the time of interview. The sample does not include members of the Armed Forces, U. S. nationals living in foreign countries, or crews of vessels.

#### Statistical Design of the Health Interview Survey

General plan.—The sampling plan of the survey follows a multistage probability design which permits a continuous sampling of the civilian noninstitutional population of the United States. The first stage of this design consists of drawing a sample of 500 from the 1,900 geographically defined Primary Sampling Units (PSUs) into which the United States has been divided. A PSU is a county, a group of contiguous counties, or a Standard Metropolitan Statistical Area.

With no loss in general understanding, the remaining stages can be telescoped and treated in this discussion as an ultimate stage. Within PSU's then, ultimate stage units called segments are defined, also geographically, in such a manner that each segment contains an expected six households. Each week a random sample of about 120 segments is drawn. In the approximately 700 households in these segments, household members are interviewed concerning factors related to health.

Since the household members interviewed each week are a representative sample of the population, samples for successive weeks can be combined into larger samples for a calendar quarter or a year. Thus the design permits both continuous measurement of characteristics of high incidence or prevalence in the population and, through the larger consolidated samples, more detailed analysis of less common char-

acteristics and smaller categories. The continuous collection has administrative and operational advantages as well as technical assets, since it permits field work to be handled with an experienced, stable staff.

Sample size and geographic detail.—The national sample plan over the 12-month period ending June 28, 1959 included approximately 120,000 persons from 37,000 households in 6,200 segments, with representation from every State. The over-all sample was designed in such a fashion that, from the annual sample, tabulations can be provided for various geographic sections of the United States and for urban and rural sectors of the Nation.

Collection of data.—The field operations for the household survey are performed by the Bureau of the Census under specifications established by the Public Health Service. In accordance with these specifications the Bureau of the Census designs and selects the sample, conducts the field interviewing, and edits and codes the questionnaires. Tabulations are prepared by the Public Health Service using the Bureau of the Census electronic computers.

Estimating methods.—Each statistic produced by the survey—for example, the number of persons with hearing aids—is the result of two stages of ratio estimation. In the first of these, the factor is the ratio of the 1950 decennial population count to the 1950 estimated population in the U.S. National Health Survey's first-stage sample of PSU's. This factor is applied for more than 50 color-residence classes.

Later, ratios of sample-produced estimates to official Bureau of the Census figures for current population are computed for about 60 age-sex-color classes, and serve as second-stage factors for ratio estimating.

The effect of the ratio estimating process is to make the sample closely representative of the U. S. population by age, sex, color, and residence, thus reducing sampling variance.

As noted, each week's sample represents the population living during that week and characteristics of the population. For statistics which measure the prevalence of a characteristic at one point in time, consolidation of the weekly samples over any time period, such as a year, produces an estimate of the average prevalence of the characteristic during that time period.

For statistics which measure the incidence of conditions or disability days during a specified period of time, the procedure is different. For such items, the specified period on the questionnaire is the 2 weeks prior to the interview. Therefore, the response is multiplied by 6.5 to produce an estimate for the

13-week quarter and the quarterly estimates are added to obtain an estimate of the incidence during any longer time period, such as a year. Thus, the experience which actually occurred for each person in a 2-week period is treated as though it measured the total of such experience during the year. Such interpretation leads to no significant bias.

#### General Qualifications

**Nonresponse.**—Data were adjusted for nonresponse by a procedure which imputed to persons in a household which was not interviewed the characteristics of persons in households in the same segment which were interviewed. The total noninterview rate was 5 percent; 1 percent was refusal and the other 4 percent was primarily due to the failure to find any eligible household respondent after repeated trials.

**The interview process.**—The statistics presented in this report are based on replies secured in interviews in the sampled households. Each person 18 years of age and over, available at the time of interview, was interviewed individually. Proxy respondents within the household were employed for children and for adults not available at the time of the interview, provided the respondent was closely related to the person about whom information was being obtained.

There are limitations to the accuracy of diagnostic and other information collected in household interviews. For diagnostic information, the household respondent can, at best, pass on to the interviewer only the information the physician has given to the family. For conditions which were not medically attended, diagnostic information is often no more than a description of symptoms. However, other facts, such as the number of disability days caused by the condition, can be obtained more accurately from household members than from any other source since only the persons concerned are in a position to report information of this type.

**Population figures.**—Some of the published tables include population figures for specified categories. Except for certain over-all totals which are adjusted to independent estimates, these figures are based on the sample of households in the U. S. National Health Survey. They are given primarily for the purpose of providing denominators for rate computation, and for this purpose are more appropriate for use with the accompanying measures of health characteristics than other population data which may be available. In some instances they will permit users to recombine published data into classes more suitable to their specific needs. The population figures differ from corresponding figures (which are derived from different sources) published in reports of the Bureau of the Census. For population data for general use, see the official estimates presented in Bureau of the Census reports in the P-20, P-25, P-50, P-57, and P-60 series.

#### Reliability of Estimates

Since the estimates are based on a sample, they will differ somewhat from the figures that would have been obtained if a complete census had been taken using the same schedule, instructions, and interviewing personnel and procedures. As in any survey,

the results are also subject to measurement error.

The standard error is primarily a measure of sampling variability, that is, the variations that might occur by chance because only a sample of the population is surveyed. As calculated for this report, the standard error also reflects part of the variation which arises in the measurement process. It does not include estimates of any biases which might lie in the data. The chances are about 68 out of 100 that an estimate from the sample differs from the value obtained from a complete census by less than the standard error. The chances are about 95 out of 100 that the difference is less than twice the standard error and about 99 out of 100 that it is less than 2½ times as large.

In order to derive standard errors which would be applicable to a wide variety of health statistics and which could be prepared at a moderate cost, a number of approximations were required. As a result, the tables of standard errors shown in this Appendix should be interpreted as providing an estimate of approximate standard error, rather than as the precise standard error for any specific statistic.

The following rules will enable the reader to determine the sampling errors for the data contained in this report.

1. Estimates of aggregates: Approximate standard errors of estimates of aggregates, such as the number of persons with a special ailment, with an impairment, or in a major activity category, are obtained from table I.

Table I. Standard errors of estimates of aggregates<sup>1</sup> (all numbers shown in thousands)

Size of estimate	Approximate standard error
100-----	22
500-----	50
1,000-----	70
2,000-----	100
3,000-----	120
5,000-----	160
10,000-----	220
20,000-----	300
30,000-----	330
50,000-----	350
100,000-----	400
200,000-----	-
500,000-----	-
750,000-----	-
1,250,000-----	-

<sup>1</sup> The total U. S. population by age, sex, and residence has been adjusted to official Bureau of the Census figures and therefore is not subject to sampling error.

#### Example:

There were 367,000 persons, 75 years and over with hearing aids (table I). Since the standard error for this estimate is not shown

Table II. Standard errors of percentage distributions

When the base of the percentage is: (in thousands)	For estimated percentages of:				
	2 or 98	5 or 95	10 or 90	25 or 75	50
The approximate standard error (expressed in percentage points) is:					
100-----	3.6	5.6	6.8	9.8	12.9
300-----	1.6	2.5	3.0	4.4	5.8
1,000-----	1.1	1.8	2.1	3.1	4.1
2,000-----	0.8	1.3	1.5	2.2	2.9
3,000-----	0.7	1.0	1.2	1.8	2.4
5,000-----	0.5	0.8	1.0	1.4	1.8
10,000-----	0.4	0.6	0.7	1.0	1.3
20,000-----	0.3	0.4	0.5	0.7	0.9
30,000-----	0.2	0.3	0.4	0.6	0.7
50,000-----	0.2	0.3	0.3	0.4	0.6
100,000-----	0.1	0.2	0.2	0.3	0.4

in table I, it is necessary to interpolate between the standard error for 100,000 persons which is 22,000 and the standard error for 500,000 persons which is 50,000. Such interpolation gives 41,000 as the standard error for 367,000 persons 75 years and over with hearing aids.

2. Estimates of percentages in a percent distribution: Approximate standard errors for the percentage distribution of persons with special aids by age, amount of time aid used, limitation of activity or mobility, or type of condition for which aid was used are given in table II.

Example:

An estimated 40.8 percent of the 201,000 persons with leg or foot braces were under 15 years of age (table E). Since neither the base nor the percentage is shown in table II, it is necessary to interpolate between 25 percent and 50 percent to obtain 11.76 as the standard error of 40.8 percent with a base of 100,000 and 5.28 as the standard error of 40.8 percent with a base of 500,000. A final interpolation between these results yields 10.1 as the standard error for a statistic of 40.8 percent with a base of 201,000.

3. Estimates of the prevalence of an impairment or the number of special aids per 1,000 total persons or persons in an age-sex group are obtained from table II. Since table II is set up for the estimation of the standard error of a rate per 100, the rate per 1,000 must first be converted to a percentage; table II is then entered with this percentage and the number of persons in the category (base of the percentage). The entry in the body of the table (as interpolated) must then be multiplied by 10 to apply to the rate per 1,000 persons.

Example:

There were 72.6 hearing aids per 1,000 persons 75 years and over (table I). This rate expressed as a percentage is 7.3, and it is based on 5,052,000 persons 75 years and over. Since neither the base nor the percentage is shown in table II it is necessary to interpolate between 5 percent and 10 percent to obtain 0.89 as the standard error for 7.3 percent with a base of 5,000,000 and 0.64 as the standard error of 7.3 percent with a base of 10,000,000. A final interpolation between these results yields 0.88 as the standard error of 7.3 with a base of 5,052,000. Multiplying this standard error by 10 gives 8.9 as the standard error for a rate of 72.6 hearing aids per 1,000 population.

4. Estimates of the number of hearing aids per 1,000 persons with hearing impairment: Approximate standard errors for these rates are obtained as follows:

- Obtain the standard error of the numerator from table I. Divide the standard error by the numerator itself. Square the result.
- Obtain the standard error of the denominator from table I. Divide the standard error by the denominator itself. Square the result.
- Add the answers from steps (a) and (b) above and extract the square root.
- Multiply the answer from step (c) by the rate. The result is the approximate standard error of the rate. This procedure normally gives an overestimate of the true sampling error.

Example:

There were 276.8 hearing aids per 1,000 persons 75 years and over with hearing im-

pairment (table 1). Using rule 1 we find that the standard error for the numerator of 367,000 hearing aids is 41,000 and the standard error for the denominator of 1,326,000 persons with hearing impairment (table 5) is 80,000. Completing the computation as follows:

$$276.8 \sqrt{\left(\frac{41,000}{367,000}\right)^2 + \left(\frac{80,000}{1,326,000}\right)^2}$$

yields 35.2 as the standard error of 276.8 hearing aids.



## APPENDIX II

### DEFINITIONS OF CERTAIN TERMS USED IN THIS REPORT

#### Terms Relating to Special Aids

**Special aid.**—A special aid is a device used to compensate for defects resulting from disease, injury, impairment, or congenital malformation. Aids included in this survey are hearing aids, wheel chairs, braces, and artificial limbs. Information was recorded about special aids even though persons possessing them did not use them.

1. **Hearing aid** is defined as any kind of mechanical or electrical device used to improve hearing.
2. **Wheel chair** is any device stated by the respondent to be a wheel chair, but excluding wheeled "walkers" and nonwheeled devices for support.
3. **Brace** is defined as any kind of supportive device for the arms, hands, legs, feet, back, neck, or head, exclusive of temporary casts, slings, bandages, trusses, belts, or crutches. Dental braces are also excluded.
4. **Artificial limb** is a device used to replace a missing leg, arm, hand, or foot. It does not have to have moving parts, but a device employed only for lengthening a leg where the whole leg and foot is present is not included.

**Use of special aid.**—The frequency of use of a special aid was recorded as reported by the respondent in terms of "all of the time," "most of the time," "occasionally," or "never used now." When necessary, it was explained that these terms referred to the times when a person possessing such a device would ordinarily be expected to use it, such as during the waking hours and under the circumstances that would normally require it.

#### Demographic, Social, and Economic Terms

**Age.**—The age recorded for each person is the age at last birthday. Age is recorded in single years and grouped in a variety of distributions depending upon the purpose of the table.

**Income of family or of unrelated individuals.**—Each member of a family is classified according to the total income of the family of which he is a member. Within the household all persons related to each other by blood, marriage, or adoption constitute a family. Unrelated individuals are classified according to their own income.

The income recorded is the total of all income received by members of the family (or by an unrelated individual) in the 12-month period ending with the week of interview. Income from all sources is included, e.g., wages, salaries, rents from property, pensions, help from relatives, and so forth.

**Major activity.**—All persons are classified according to their major activity during the 12-month period prior to the week of interview. The "major" activity, in case more than one is reported, is the one at which the person spent the most time during the 12-month period.

The categories of major activity are: usually working, usually going to school, usually keeping house, retired, and other (including preschool). For several reasons these categories are not comparable with somewhat similarly named categories in official Federal labor force statistics. In the first place, the responses concerning major activity are accepted without detailed questioning, since the objective of the question is not to estimate the numbers of persons in labor force categories but to identify crudely certain population groups which may have differing health problems. In the second place, the figures represent the major activity over the period of an entire year, whereas official labor force statistics relate to a much shorter period, usually one week. Finally, in the definitions of the specific categories which follow, certain marginal groups are classified in a different manner to simplify the procedures.

1. **Usually working** includes paid work as an employee for someone else; self-employment in own business, or profession, or in farming; and unpaid work in a family business or farm. Work around the house, or volunteer or unpaid work, such as for church, Red Cross, etc., is not counted as working.
2. **Usually going to school** means attendance at a regular school or college which advances a person toward an elementary or high school diploma or a college degree.
3. **Usually keeping house** includes any activity described as "keeping house" which cannot be classified as "working" or "going to school."
4. **Retired** includes persons 50 years old or over who consider themselves to be retired. In case of doubt, a person 50 years old or over is counted as retired if he, or she, has either voluntarily or involuntarily stopped working, is not looking for work, and is not described as "keeping house." A retired person may or may not be unable to work.
5. **Other** includes persons not classed in any of the other categories. Examples of inclusions are: a preschool child, a person who states that he spent most of the past 12 months looking for work, a person doing volunteer work only, a person under 50 years of age who describes himself as "retired" or "taking it easy," a person under 50 years of age who is described as "unable to work" or "unable to go to school," or a person 50 years of age or over who describes himself as "unable to work" and is not "retired."

#### Location of Residence Terms

**Urban and rural residence.**—The definition of urban and rural areas used in the U. S. National Health Survey is the same as that used in the 1950 Census. According

to this definition, the urban population comprises all persons living in (a) places of 2,500 inhabitants or more incorporated as cities, boroughs, and villages; (b) incorporated towns of 2,500 inhabitants or more except in New England, New York, and Wisconsin, where "Towns" are simply minor civil divisions of counties; (c) the densely settled urban fringe, including both incorporated and unincorporated areas, around cities of 50,000 or more; and (d) unincorporated places of 2,500 inhabitants or more outside any urban fringe. The remaining population is classified as rural.

#### Terms Relating to Disability

**Chronic activity limitation.**—Persons with chronic conditions are classified into four categories according to the extent to which their activities are limited at present as a result of these conditions. Since the major activities of preschool children, school-age children, housewives, and workers and other persons differ, a different set of criteria is used for each group. There is a general similarity between them, however, as will be seen in the descriptions of the four categories below:

1. Persons unable to carry on major activity for their group

Preschool children:	Inability to take part in ordinary play with other children.
School-age children:	Inability to go to school.
Housewives:	Inability to do any housework.
Workers and all other persons:	Inability to work at a job or business.
2. Persons limited in the amount or kind of major activity performed

Preschool children:	Limited in the amount or kind of play with other children, e.g., need special rest periods, cannot play strenuous games, cannot play for long periods at a time.
School-age children:	Limited to certain types of schools or in school attendance, e.g., need special schools or special teaching, cannot go to school full time or for long periods at a time.
Housewives:	Limited in amount or kind of housework, i.e., cannot lift children, wash or iron, or do housework for long periods at a time.
Workers and all other persons:	Limited in amount or kind of work, e.g., need special working aids or special rest periods at work, cannot work full time or for long periods at a time, cannot do strenuous work.
3. Persons not limited in major activity but otherwise limited

Preschool children:	Not classified in this category.
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School-age children: not limited in going to school but limited in participation in athletics or other extracurricular activities.

Housewives: not limited in housework but limited in other activities, such as church, clubs, hobbies, civic projects, or shopping.

Workers and all other persons: not limited in regular work activities but limited in other activities, such as church, clubs, hobbies, civic projects, sports, or games.

4. Persons not limited in activities  
Includes persons with chronic conditions whose activities are not limited in any of the ways described above.

**Chronic mobility limitation.**—Persons with chronic activity limitation of some degree as a result of one or more chronic conditions are classified according to the extent to which their mobility is limited at present. There are four categories as follows:

1. Confined to the house—confined to the house all the time except in emergencies.
2. Cannot get around alone—able to go outside but needs the help of another person in getting around outside.
3. Has trouble getting around alone—able to go outside alone but has trouble in getting around freely.
4. Not limited in mobility—not limited in any of the ways described above.

#### Terms Relating to Conditions

**Condition.**—A morbidity condition, or simply a condition, is any entry on the questionnaire which describes a departure from a state of physical or mental well-being. It results from a positive response to one of a series of "Illness-recall" questions. In the coding and tabulating process, conditions are selected or classified according to a number of different criteria, such as, whether they were medically attended; whether they resulted in disability; whether they were acute or chronic; or according to the type of disease, injury, impairment, or symptom reported. For the purposes of each published report or set of tables, only those conditions recorded on the questionnaire which satisfy certain stated criteria are included.

**Impairment.**—An impairment is a chronic or permanent defect, usually static in nature, resulting from disease, injury, or congenital malformation. An impairment usually results in decrease or loss of ability to perform various functions, particularly those of the musculoskeletal system and the sense organs. Impairments are restricted to conditions included in the Classification of Impairments (referred to as the X-Code) and are coded by type, site, and etiology according to that classification. Type and site are expressed by the numbers X00-X99, and etiology is indicated by adding to each type the appropriate 1-digit code from one of the two lists of etiologic factors. In this publication, all bearing impairment codes (X06-X09) are grouped together.

## QUESTIONNAIRE

The items below show the exact content and wording of the questionnaire used in the household survey. The actual questionnaire is designed for a household as a unit and includes additional spaces for reports on more than one person.

[illegible]





<p><b>Card A</b></p> <p><b>NATIONAL HEALTH SURVEY</b></p> <p>Check List of Chronic Conditions</p> <ol style="list-style-type: none"> <li>1. Asthma</li> <li>2. Hay fever</li> <li>3. Tuberculosis</li> <li>4. Chronic bronchitis</li> <li>5. Repeated attacks of sinus trouble</li> <li>6. Rheumatic fever</li> <li>7. Arthritis of the joints</li> <li>8. Rheumatoid arthritis</li> <li>9. Heart trouble</li> <li>10. Stroke</li> <li>11. Trouble with vertigo or nausea</li> <li>12. Hemorrhoids or piles</li> <li>13. Gallbladder or liver trouble</li> <li>14. Stomach ulcer</li> <li>15. Chronic constipation</li> <li>16. Stomach trouble</li> <li>17. Arteritis or rheumatism</li> <li>18. Possible trouble</li> <li>19. Diabetes</li> <li>20. Thyroid trouble or other</li> <li>21. History of diabetes</li> <li>22. History of kidney</li> <li>23. Rash or herpes</li> <li>24. Trouble with back or spine</li> <li>25. Tumor or cancer</li> <li>26. Serious or rupture</li> </ol>	<p><b>Card C</b></p> <p><b>NATIONAL HEALTH SURVEY</b></p> <p>Part</p> <p>Workers and other persons except housewives and children</p> <ol style="list-style-type: none"> <li>1. Cannot work at all at present.</li> <li>2. Can work but limited in amount or kind of work.</li> <li>3. Can work but limited in kind or amount of outside activities.</li> <li>4. Not limited in any of these ways.</li> </ol>	<p><b>Card E</b></p> <p><b>NATIONAL HEALTH SURVEY</b></p> <p>Part</p> <p>Children from 6 to 16 years old and others going to school</p> <ol style="list-style-type: none"> <li>1. Cannot go to school at all at present time.</li> <li>2. Can go to school but limited to certain types of schools or in certain attendance.</li> <li>3. Can go to school but limited in other activities.</li> <li>4. Not limited in any of these ways.</li> </ol>	<p><b>Card G</b></p> <p><b>NATIONAL HEALTH SURVEY</b></p> <ol style="list-style-type: none"> <li>5. Confined to the house at all time, except in emergency.</li> <li>6. Can go outside but need the help of another person in getting around outside.</li> <li>7. Can go outside alone but have trouble in getting around freely.</li> <li>8. Not limited in any of these ways.</li> </ol>
<p><b>Card B</b></p> <p><b>NATIONAL HEALTH SURVEY</b></p> <p>Check List of Infirmities</p> <ol style="list-style-type: none"> <li>1. Deafness or serious trouble with hearing.</li> <li>2. Serious trouble with seeing, even with glasses.</li> <li>3. Condition present since birth, such as cleft palate or club foot.</li> <li>4. Stammering or other trouble with speech.</li> <li>5. Missing fingers, hand, or arm.</li> <li>6. Missing toes, feet, or legs.</li> <li>7. Cerebral palsy.</li> <li>8. Paralysis of any kind.</li> <li>9. Any permanent stiffness or deformity of the foot or leg, fingers, arm, or back.</li> </ol>	<p><b>Card D</b></p> <p><b>NATIONAL HEALTH SURVEY</b></p> <p>Part</p> <p>Housewife</p> <ol style="list-style-type: none"> <li>1. Cannot keep house at all at present.</li> <li>2. Can keep house but limited in amount or kind of housework.</li> <li>3. Can keep house but limited in outside activities.</li> <li>4. Not limited in any of these ways.</li> </ol>	<p><b>Card F</b></p> <p><b>NATIONAL HEALTH SURVEY</b></p> <p>Part</p> <p>Children under 6 years old</p> <ol style="list-style-type: none"> <li>1. Cannot take part at all in ordinary play with other children.</li> <li>2. Can play with other children but limited in amount or kind of play.</li> <li>3. Not limited in any of these ways.</li> </ol>	<p><b>Card H</b></p> <p><b>NATIONAL HEALTH SURVEY</b></p> <p>Family income during past 12 months</p> <ol style="list-style-type: none"> <li>1. Under \$200 (including bank)</li> <li>2. \$200 - \$399</li> <li>3. \$400 - \$4,999</li> <li>4. \$5,000 - \$9,999</li> <li>5. \$10,000 - \$14,999</li> <li>6. \$15,000 - \$19,999</li> <li>7. \$20,000 - \$24,999</li> <li>8. \$25,000 - \$29,999</li> <li>9. \$30,000 and over.</li> </ol>

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Public Health Service Publication No. 584

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## Catalog Card

### U. S. National Health Survey.

Distribution and use of hearing aids, wheel chairs, braces, and artificial limbs. United States, July 1958-June 1959; statistics relating to the distribution and use of hearing aids, wheel chairs, braces, and artificial limbs, based on data collected in household interviews during period July 1958-June 1959. Washington, U.S. Dept. of Health, Education, and Welfare, Public Health Service, 1961.

28 pp. tables. Notes. (U.S. Health statistics, ser. 127)

U. S. Public Health Service, Publication no. 584-1027

1. Orthopedic apparatus. I. Title

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